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ABSTRACT

A technique for allocating fingers in a path searcher of a multipath receiver involves determining a required number of fingers for each multipath region, determining a number of allocated fingers for each multipath region according to an area-based weighting scheme such that each multipath region that is allocated fewer than its required number of fingers is deemed to have a non-zero residual area, allocating any surplus fingers to multipath regions having non-zero residual areas until either no surplus fingers remain or each multipath region is allocated its required number of fingers, and placing any fingers allocated to each multipath region within the multipath region. Placing the fingers in un-resolvable path scenario involves detecting path location at the edges of multipath region; placing fingers at the edges and placing remaining fingers uniformly between the first and the last path such that the there is a minimum placement separation between the fingers.